



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,861	03/07/2000	Stuart Mandel Garland	Garland 42-49-3-13	9056

7590 02/13/2003

Werner Ulrich  
434 Maple Street  
Glen Ellyn, IL 60137-3826

EXAMINER

GANTT, ALAN T

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/520,861

Applicant(s)

GARLAND ET AL.

Examiner

Alan T. Gantt

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 March 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

DETAILED ACTION

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Comer et al, in view of Sears.

Regarding claims 1, 12, Comer discloses a cellular communication device (CCD) for communicating over a cellular network control channel. The CCD is part of a data-reporting device that also includes a monitor, which is connected to a remote data source. The monitor observes the operation of the remote data source to obtain selected data. The CCD and its associated monitor may be used by electric utilities to provide wireless telemetry access to customer premises equipment, e.g. meters, to monitor and record the desired data. A typical application for this type data collection system is to monitor the loads of an electrical load system and to communicate energy consumption data to a central site for processing.

The device includes a transmitter that can transmit a data message formatted to correspond to an identification signal transmitted by a cellular radiotelephone when that device identifies itself to the cellular mobile radiotelephone system. The CCD is adapted to be either a one or two-way data communications as part of a data message system connecting to a mobile switching center and the data collection system where the data is stored with an identification number related to the particular CCD (Abstract and col. 3, line 54 to col. 4, line 29). The data

message contains selected data and is transmitted via the reverse overhead control channel.

There is also a receiver that can receive command signals from the MSC via a forward overhead control channel (Abstract). It is this reception capability that has similarities to the applicant's invention in that it suggests a server system being able to call up a specific device and having that device perform tasks. To do that the server would have to have a database of CCD identifiers providing information relating a device to a mobile identification number.

Comer is set up such that the CCD only responds to a command signal containing its predetermined address data to the MSC as data collection point for the data transmitted by the cellular communication devices and can, also, have a second link connecting the MSC to a data processing system (col. 22, line 64 to col. 23, line 19). The data processing system, in connecting to the MSC in the second link, connects to the data collection system, which connects to the MSC through a first link. The data processing system is typically located at a site remote from the data collection system, which may be collocated with the MSC. In this configuration the Public Switched Telephone Network would most likely connect the data processing system to the MSC containing the data collection system (col. 13, lines 40-43).

The data collection system issues a validation message that prevents the MSC from attempting to assign a voice call channel for use by the source of the data message. This satisfies applicant's limitation regarding the server system providing information for deriving a call type (col. 25, lines 15-28).

Comer does not explicitly provide means for connecting a server system to an infrastructure of a PSTN and a cellular wireless communication network. However, the data

Art Unit: 2684

collection system and the data processing system connectivity to the MSC suggest a server system connected at both these systems to manipulate operations.

Regarding the Home Location Register being part of the infrastructure of the infrastructure for storing tabular data describing characteristics of the CCD, Comer specifically makes reference to a home location register for those CCD that belong to a different cellular system (col. --, lines --). Comer does discuss the means for storing identification for each of the home CCDs and the MSC fulfills the HLR function in that it serves to validate that the received electronic serial number (ESN) and mobile identification number (MIN) as part of the call origination message are valid. If the MIN is valid and the radiotelephone is identified as a subscriber within the given cellular system, i.e., a "home" unit, then the MSC compares the received ESN to a database entry to detect fraud. If these checks succeed, the call is allowed to proceed (col. 10, lines 44-61).

Regarding tabular data accessed by the a mobile identification number, as stated above, the MSC contains a database of MINs or other identifiers for the CCDs such that a comparison is made of a incoming call origination message of individual CCDs containing the applicable MIN or other identifiers.

Comer contains CCDs that are capable of two-way communication where for communications initiated at the data processing end, the methods of Comer suggest a server system, especially for calling up individual CCDs. However, Comer does not explicitly state that server is utilized for these functions.

Sears discloses a method of communicating utility usage-related information from a plurality of meter modules to a plurality of data accumulator units, each of which transmits data

Art Unit: 2684

to a control computer. Sears is relied upon because it teaches the use of a database file server in a utility meter reading system for a wireless environment. Sears uses a file server for storing information related to each of the utility use locations in the memory connected a utility billing computer and control computer (col. 4, lines 20-39 and Figure 1).

Comer and Sears are combinable because they share a common endeavor, namely wireless utility meter reading systems. At the time of the applicant's invention it would have been obvious to modify Comer to explicitly include the use of a server for manipulating the wireless devices as done by Sears to provide centralize control and setup of the utility meter reading system.

Regarding claims 2,13, the examiner takes Official Notice that it is well known in the telephony art (such as Pinard et al.) that a plurality of wireless cellular devices to be associated with a single directory number. Therefore, it would have been obvious for Comer to utilize a single directory number for a plurality of cellular devices so that devices belonging to a common group can relate back to the service provider.

Regarding claim 3-5 and 14-16 Comer uses the data message format associated with a call origination message which allows the CCD to mimic the initiation of a cellular phone call by sending a data message that appears to contain a valid mobile telephone number and an ESN. This format has been adapted to permit the identification of the particular transmitting CCD and the communication of the selected data. A data field on the message contains a "predetermined identifying characteristic" corresponding to at least a portion of the mobile telephone number or MIN assigned to the CCD. Thus, the "predetermined identifying characteristic" is substituted within the data field normally reserved for the MIN in the call origination signal (col. 18, lines

Art Unit: 2684

39-49). Comer allows a variety of possibilities for this identifying characteristic or identifier, such as a set of unassigned mobile telephone numbers, a conventional telephone number or a set of 10 digits. Many this predetermined identifying characteristic, mainly, supplies information used by the MSC to recognize that the data message containing the predetermined identifying characteristic is associated with the data collection system and/or the data processing system (tied to the second link) [col.18, lines 50-62]. Thus, Comer is flexible on this identifier.

Therefore, the MIN could be the single directory number or common directory number tied to the second link with added differentiation to allow each CCD to be called. It could be an international mobile switching identifier. Thus, as long as the MSC is made to correlate the data field to the stored identifier, the identifier can take almost any form.

Regarding claims 6, 17, Comer suggests this procedure since there has to be some predetermined identifying characteristic to link the CCD to data collection system.

Regarding claims 7 and 18, the examiner takes Official Notice that it is well known in the telephony art (such as Pinard et al.) that a plurality of wireless cellular devices can be associated with a single directory number. Therefore, it would have been obvious for Comer to utilize a single directory number for a plurality of cellular devices so that devices belonging to a common group can show kinship through use of the terminating directory number.

Regarding claims 8 and 19, The data collection system, which would typically include a server, issues a validation message that prevents the MSC from attempting to assign a voice call channel for use by the source of the data message. This satisfies applicant's limitation regarding the server system providing information for deriving a call type (col. 25, lines 15-28). Also, as

Art Unit: 2684

stated previously, by sending out a terminating directory number, the data collection and processing systems are able to operate on individual CCDs.

Regarding claims 9 and 20, the examiner takes Official Notice that it is well known that an international mobile switching identifier is a form of identification for devices using cellular type networks and that it would have been obvious for Comer to use IMSI as it is a universally utilized identifier system.

Regarding claims 10 and 21, the MSC of Comer has a HLR functionality in that it has a database of home cellular devices, including CCDs, and has provisions for handling roaming devices of this type and communicates with the HLR of the remote cellular system of the roaming device (col. 14, line 60 to col. 15, line 32). As stated above for claims 9 and 20, it is well known that an international mobile switching identifier is a form of identification for devices using cellular type networks and that it would have been obvious for Comer to use IMSI, as it is a universally utilized identifier system.

Regarding claims 11 and 22, the examiner takes Official Notice that it is well known that for large accounts such as a service provider connecting to many wireless telemetry devices through an MSC for the server of the service provider to connect to the exchange by way of an ISDN facility for the purpose of better managing the wireless devices.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



Art Unit: 2684

Tell discloses a meter data collection device for transmitting meter data over a control channel of a wireless communication system.

Pinard discloses a method of establishing a communication link to one of multiple devices associated with a single telephone number.

Any inquiry concerning this communication from the examiner should be addressed to Alan Gantt at telephone number (703) 305-0077. The examiner can normally be reached between 9:30 AM and 6 PM within the Eastern Time Zone. The group FAX number is (703) 308-6306.

Any inquiry of a general nature or relating to this application should be directed to the group receptionist at telephone number (703) 305-4700.

Alan T. Gantt

February 9, 2003

*Alan T. Gantt*  
ALAN THOMAS GANTT  
PATENT EXAMINER